

Listing of Claims

1. (CURRENTLY AMENDED) A retractable triangular column comprising:
at least three section chains arranged in an adjacent manner, each section chain having a plurality of sections pivotally connected to each other; and
at least one chain connection member extending in an outward direction from opposite ends of each section wherein the chain connection members further comprise a surface which slopes toward a point and whereby each chain connection member directly couples to another chain connection member to link each section chain to the adjacent section chains in such a manner as to form a rigid triangular column as the section chains are raised in an operable position.
2. (PREVIOUSLY PRESENTED) The retractable column of claim 1 wherein the chain connection member further comprises an elongated shaft and a distal hook portion wherein the surface of the chain connection member that converges towards a point is represented by the distal hook portion.
3. (PREVIOUSLY PRESENTED) The retractable column of claim 2 wherein a plane running through the hook of the second chain connection member is set at an angle to the elongated shaft.
4. (PREVIOUSLY PRESENTED) The retractable column of claim 3 wherein the elongated shaft of the chain connection member has a shoulder portion wherein the shoulder portion engages the corresponding section and the engagement of the shoulder and the section prevents twisting of the shaft in relation to the section from which the chain connection member extends.
5. (CURRENTLY AMENDED) The retractable column of claim 1 further comprising:
a guide tower operably positioned relative to the three section chains wherein the guide tower fits about and engages the sections and helps to guide the ~~hooks~~ chain connection members of the adjacent section chains into coupled engagement; and

an at least one guide roller operably connected to the guide tower and operably interacting with the section chains whereby the guide rollers engage the sections and helps to guide the ~~hooks of the~~ chain connection members into coupled engagement.

6. (CURRENTLY AMENDED) The retractable column of claim 1, ~~[[6]]~~ further comprising an at least one shim, the shims operably affixed to the guide tower whereby the shims engage the sections and helps to guide the ~~hooks~~ chain connection members into coupled engagement.

7. (PREVIOUSLY PRESENTED) The retractable column of claim 5 further comprising an at least one interior roller, the interior rollers operably affixed to the guide tower whereby the interior rollers engage the sections and helps to guide the hooks into coupled engagement.

8. (PREVIOUSLY PRESENTED) The retractable column of claim 7 further comprising a gear rack fixedly connected to each section of the section chain, the gear rack affixed by an extruded T-slot to which fasteners are attached through the gear rack and into the section whereby the gear rack is positioned to engage a drive mechanism and an at least one guide roller.

9. (PREVIOUSLY PRESENTED) The retractable column of claim 8 wherein an at least one key is inserted into an at least one slot thereby affixing the gear rack to the section of the section chain.

10. (CURRENTLY AMENDED) The retractable column of claim 9 wherein the drive mechanism is operably attached to guide tower and operably interacts with the section chains whereby actuation of the drive mechanism raises the section chains into position so that the first and second ~~hooks~~ chain connection members engage to form the column.

11. (WITHDRAWN)

12. (CURRENTLY AMENDED) A triangular retractable column that can be stored on a take up mechanism, the triangular column further comprising:

at least three sections chains, each section chain comprising a plurality of sections pivotally connected in a line, the section chains being attached in such a manner that they can be rolled up on the take up mechanism in a compact fashion and wherein each section is layered upon previous sections;

a first connection member operably attached to each section wherein the first connection member extends in a horizontal manner from the section; and

a second connection member operably attached to each section wherein the second connection member extends in an off-set manner from the section, wherein the connection members are curved and wherein when one section chain is extended from the take up mechanism and into a corresponding position adjacent a second section chain, the section chains operably couple by attachment of the sequential attachment of first connection members of one section chain directly to second connection members of the second section chain.

13. (PREVIOUSLY PRESENTED) The retractable column of claim 12 further comprising a kicker, the kicker operably attached to a crossbar of each section of the section chain whereby when the section is taken up by the take up mechanism, the kicker shunts the section into a properly seated position relative to the section underneath it on the take up mechanism.

14. (PREVIOUSLY PRESENTED) The retractable column of claim 13 further comprising a drive mechanism operably attached to the section chains whereby actuation of the drive mechanism raises the section chains into position whereby the interlocking engagement of the first and second connection members to form the column.

15. (PREVIOUSLY PRESENTED) The retractable column of claim 14 further comprising:
a guide tower operably positioned to the three section chains wherein the guide tower fits about and engages the sections and helps to guide the first and second connection members into coupled engagement; and

at least one guide roller operably connected to the guide tower and operably interacting with the section chains whereby the guide rollers engage the sections and helps to guide the first and second connection members into coupled engagement.

16. (PREVIOUSLY PRESENTED) The retractable column of claim 15 further comprising an at least one shim, the shims operably attached to the guide tower whereby the shims engage the sections and helps to guide the first and second connection members into coupled engagement.

17. (PREVIOUSLY PRESENTED) The retractable column of claim 16 further comprising an at least one interior roller, the interior rollers operably positioned on the guide tower whereby the interior rollers engage the sections and help to guide the first and second connection members into coupled engagement.

18. (PREVIOUSLY PRESENTED) The retractable column of claim 15 further comprising:
a gear rack fixedly connected to each section of the section chain, the gear rack affixed an extruded T-slot to which fasteners are attached through the gear rack and into the section whereby the gear rack is positioned to engage a drive mechanism and an at least one guide roller; and

an at least one key inserted into the gear rack and the section of the section chain whereby the gear rack is affixedly connected to the section of the section chain.

19. (PREVIOUSLY PRESENTED) The retractable column of claim 15 further comprising a drive mechanism operably attached to the section chains whereby actuation of the drive mechanism raises the section chains into position whereby the interlocking engagement of the first and second connection members to form the column.

20. (WITHDRAWN)

21. (CURRENTLY AMENDED) An apparatus for raising a retractable triangular column, the apparatus comprising:

at least three sections chains adjacently positioned, the section chains operably positioned so that they may be raised and lowered concurrently, the raising of each section chain acting to directly couple each section chain to the adjacent section chains to form the triangular column;

a guide tower, the guide tower positioned about and engaging the sections chains and situated so that as the section chains are raised, the section chains move up the length of the guide tower and are guided into a position that facilitates the coupling of each section chain to the adjacent section chains to form the column;

an at least one guide roller, the guide roller operably attached to the guide tower so that the guide roller operatively interacts with a portion of the sections of the section chains to guide the section chains into position where each section chain may be physically coupled to the section chains adjacent to it;

an at least one shim each shim operably attached to the guide tower, the shims providing an adjustable platform for guiding the sections of the section chains into a position whereby the coupling of the adjacent section chains will be accomplished; and,

and further comprising a motor operably affixed to the guide tower, the motor effectuating the raising and lowering of each section chain.

22. (CURRENTLY AMENDED) A retractable triangular column for supporting an overhead structure, the triangular column further comprising:

at least three sections chains, each section chain comprising a plurality of sections pivotally connected in a line, the section chains being attached in such a manner that they can be rolled up on a take mechanism in a compact fashion with each section layered upon prior sections;

a first hook attached to each section of the section chains, the first hook extending in a horizontal manner from each section; and,

a second hook attached to the opposite side of each section from the first hook and in an off-set manner whereby each first hook on a section is adjacent to an offset hook on an adjacent section, whereby when the section chains are raised in a concurrent manner, the first hooks from adjacent sections form an interlocking engagement with the second hooks from adjacent sections, the interlocking engagement binding each section chain directly to the adjacent section chains.

23. WITHDRAWN

24. WITHDRAWN